U.S. Application No.: 10/559,596 Filing Date: August 16, 2007 Response to Notice to Comply

Amendments to the Specification:

Please insert the following new section, immediately after paragraph [0002].

STATEMENT REGARDING SEQUENCE LISTING

[0002a] The Sequence Listing associated with this application is provided in text format in lieu of a paper copy, and is hereby incorporated by reference into the specification. The name of the text file containing the Sequence Listing is 210121_579USPC_SEQUENCE_LISTING.txt. The text file is 67 KB, was created on November 30, 2010, and is being submitted electronically via EFS-Web.

Please replace paragraph [0056] with the following red-lined paragraph:

[0056] Another way to make amino acid substitutions to produce variants of the present invention is to identify and replace amino acids in T cell motifs with potential to bind to class II MHC molecules (for CD4⁺ T cell response) or class I MHC molecules (for CD8⁺ T cell response). Peptide segments with a motif with theoretical potential to bind to class II MHC molecules may be identified by computer analysis. For example, a protein sequence analysis package, T Sites, that incorporates several computer algorithms designed to distinguish potential sites for T cell recognition can be used (Feller et al. (1991) Nature 349:720-721). Two searching algorithms are used: (1) the AMPHI algorithm described by Margalit (Feller et al. (1991) Nature 349:720-721; Margalit et al. (1987) J. Immunol. 138:2213-2229) identifies epitope motifs according to alpha-helical periodicity and amphipathicity; (2) the Rothbard and Taylor algorithm identifies epitope motifs according to charge and polarity pattern (Rothbard et al. (1988) EMBO J. 7:93-100). Segments with both motifs are most appropriate for binding to class II MHC molecules. CD8⁺ T cells recognize peptides bound to class I MHC molecules. Parker et al. (1994) J. Immunol. 152:163 have determined that peptides binding to particular MHC molecules share discernible sequence motifs. A peptide motif for binding in the groove of HLA-A2.1 has been defined by Edman degradation of peptides stripped from HLA-A2.1 molecules of a cultured cell line (Table 1, from Falk et al. (1991) Nature 351:290-296). The method identified the typical or average HLA-A2.1 binding peptide as being 9 amino acids in length with dominant

U.S. Application No.: 10/559,596

Filing Date: August 16, 2007 Response to Notice to Comply

anchor residues occurring at positions 2 (L) and 9 (V) (SEQ ID NO:9). Commonly occurring

strong binding residues have been identified at positions 2 (M), 4 (E,K), 6 (V), and 8 (K). The

identified motif represents the average of many binding peptides.

Please replace paragraph [0057] with the following red-lined paragraph:

[0057] The derived peptide motif (SEQ ID NO:9) as currently defined is not particularly

stringent. Some HLA-A2.1 binding peptides do not contain both dominant anchor residues and

the amino acids flanking the dominant anchor residues play major roles in allowing or

disallowing binding. Not every peptide with the current described binding motif will bind, and

some peptides without the motif will bind. However, the current motif is valid enough to allow

identification of some peptides capable of binding. Of note, all MHC molecules and respective

motifs place 6 amino acids between the dominant anchor amino acids at residues 2 and 9.

Please delete the section of the application entitled "Sequence Listing"

immediately after claim 25 on page 67.

3 of 4